# Cleaved Caspase-3 (Asp175) (PT0457R) PT® Rabbit mAb

CatalogNo: YM8294 Recombinant

## Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat,

Applications
- WB,IHC,IF,IP,ELISA

MW
- 17kD,19kD (Calculated)
35kd(Full Length),19kd(p19),17kd(p17) (Observed)

Isotype
- IgG,Kappa

## Recommended Dilution Ratios

**IHC 1:200-1:1000**
**WB 1:1000-1:5000**
**IF 1:200-1:1000**
**ELISA 1:5000-1:20000**
**IP 1:50-1:200**

## Storage

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|---|---|
| **Storage*** | -15°C to -25°C/1 year(Do not lower than -25°C) |
| **Formulation** | PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA |

## Basic Information

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|---|---|
| **Clonality** | Monoclonal |
| **Clone Number** | PT0457R |

## Immunogen Information

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|---|---|
| **Specificity** | This antibody detects endogenous levels of Cleaved Caspase-3 (Asp175). |

## Target Information

**Gene name** CASP3

**Protein Name** Caspase3

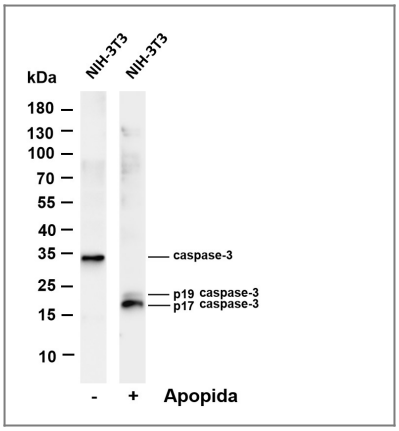
| Organism | Gene ID | UniProt ID |
|---|---|---|
| Human | 836; | P42574; |
| Mouse | 12367; | P70677; |
| Rat | 25402; | P55213; |

**Cellular Localization** Cytoplasm

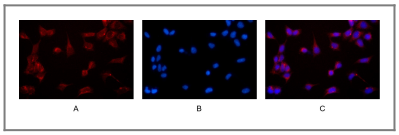
**Tissue specificity** Highly expressed in lung, spleen, heart, liver and kidney. Moderate levels in brain and skeletal muscle, and low in testis. Also found in many cell lines, highest expression in cells of the immune system.

**Function** Catalytic activity:Strict requirement for an Asp residue at positions P1 and P4. It has a preferred cleavage sequence of Asp-Xaa-Xaa-Asp-|- with a hydrophobic amino-acid residue at P2 and a hydrophilic amino-acid residue at P3, although Val or Ala are also accepted at this position.,enzyme regulation:Inhibited by isatin sulfonamides.,Function:Involved in the activation cascade of caspases responsible for apoptosis execution. At the onset of apoptosis it proteolytically cleaves poly(ADP-ribose) polymerase (PARP) at a '216-Asp-|-Gly-217' bond. Cleaves and activates sterol regulatory element binding proteins (SREBPs) between the basic helix-loop-helix leucine zipper domain and the membrane attachment domain. Cleaves and activates caspase-6, -7 and -9. Involved in the cleavage of huntingtin.,PTM:Cleavage by granzyme B, caspase-6, caspase-8 and caspase-10 generates the two active subunits. Additional processing of the propeptides is likely due to the autocatalytic activity of the activated protease. Active heterodimers between the small subunit of caspase-7 protease and the large subunit of caspase-3 also occur and vice versa.,PTM:S-nitrosylated on its catalytic site cysteine in unstimulated human cell lines and denitrosylated upon activation of the Fas apoptotic pathway, associated with an increase in intracellular caspase activity. Fas therefore activates caspase-3 not only by inducing the cleavage of the caspase zymogen to its active subunits, but also by stimulating the denitrosylation of its active site thiol.,similarity:Belongs to the peptidase C14A family.,subunit:Heterotetramer that consists of two anti-parallel arranged heterodimers, each one formed by a 17 kDa (p17) and a 12 kDa (p12) subunit.,tissue specificity:Highly expressed in lung, spleen, heart, liver and kidney. Moderate levels in brain and skeletal muscle, and low in testis. Also found in many cell lines, highest expression in cells of the immune system.,

## Validation Data




Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Cleaved Caspase-3 (Asp175) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: NIH-3T3 Lane 2: NIH-3T3 treated with Apopida Predicted band size: 17,19kDa Observed band size: 17,19kDa




Immunofluorescence analysis of HEK293. Picture A: Cleaved Caspase-3 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B

## Contact information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|---|---|
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**Cleaved Caspase-3 (Asp175) (PT0457R) PT® Rabbit mAb**